

AMENDMENTS TO THE CLAIMS

1. **(Currently amended)** A multiple decoding apparatus receiving a signal composed of a plurality of encoded data for simultaneously decoding two or more of the data, said apparatus comprising:

a reproduction controller for outputting various types of control information related to decoding and reproduction of the data;

a data extractor receiving ~~said~~ the signal for extracting the two or more data designated by ~~said~~ the control information;

a buffer storing the data extracted by said data extractor;

Q8 a buffer manager for controlling said buffer in accordance with ~~said~~ the control information for said buffer;

a data flow controller for distributing the data stored in said buffer for each type and transferring the data in accordance with provided transfer conditions;

a plurality of separate buffers for respectively storing the data distributed and transferred by said data flow controller;

a separate buffer manager for ~~respectively~~ controlling ~~said~~ outputs of said plurality of separate buffers so as to be associated with each other in accordance with information ~~related to the specification of said~~ for specifying said plurality of separate buffer buffers;

a plurality of decoders respectively corresponding to said plurality of separate buffers for decoding the data stored in said separate buffers and outputting the decoded data; and

a decoding controller for selecting ~~said a~~ separate buffer and ~~said decoder~~ a decoder, which are used for the decoding, from among said plurality of separate buffers and said plurality of decoders in accordance with ~~said~~ the control information, and outputting information related to ~~the selected~~ said separate buffer selected by said decoding controller, ~~said~~ the transfer conditions based on ~~the selected~~ said separate buffer selected by said decoding controller, and an instruction to start the decoding, respectively, to said separate buffer manager, said data flow controller, and said ~~selected~~ decoder selected by said decoding controller.

2. **(Currently amended)** The multiple decoding apparatus according to claim 1, wherein said buffer manager outputs, when said buffer becomes full of the data, an overflow notification to said reproduction controller,

said reproduction controller outputs, upon receipt of ~~said~~ the overflow notification, an instruction to stop the data extraction to said data extractor, and outputs an initialization instruction to said decoding controller;

Q8 said decoding controller outputs, upon receipt of the initialization instruction from said reproduction controller, an instruction to initialize all of said plurality of separate buffers to said separate buffer manager, outputs to said buffer manager an instruction to initialize said buffer, and respectively outputs instructions to stop the decoding to all of said plurality of decoders,

said buffer manager initializes said buffer in accordance with the initialization instruction from said decoding controller,

said separate buffer manager initializes all of said plurality of separate buffers in accordance with the initialization instruction from said decoding controller, and

all the processing which is stopped is resumed after all of said buffer and said plurality of separate buffers are initialized.

3. **(Currently amended)** The multiple decoding apparatus according to claim 1, wherein said separate buffer manager outputs, when ~~the~~ a specific separate buffer becomes full of the data, an overflow notification that the specific separate buffer overflows to said decoding controller,

said decoding controller outputs, upon receipt of the overflow notification that said specific separate buffer overflows, an instruction to stop the data transfer to ~~the~~ said specific separate buffer to said data flow controller, outputs an instruction to stop the decoding to ~~said~~ a decoder corresponding to ~~the~~ said specific separate buffer, and outputs to said separate buffer manager an instruction to initialize ~~the~~ said specific separate buffer,

said separate buffer manager initializes said specific separate buffer in accordance with the initialization instruction from said decoding controller, and

all the processing which is stopped is resumed after said specific separate buffer is initialized.

4. **(Currently amended)** The multiple decoding apparatus according to claim 1, wherein said separate buffer manager outputs, when ~~the~~ a specific separate buffer becomes full of the data, an overflow notification that ~~the~~ said specific separate buffer overflows to said decoding controller,

said decoding controller outputs, upon receipt of the overflow notification that said specific separate buffer overflows, an instruction to discard the data directed toward ~~the~~ said specific separate buffer to said data flow controller, outputs an instruction to stop the decoding to ~~said~~ a decoder corresponding to ~~the~~ said specific separate buffer, and outputs an instruction to initialize ~~the~~ said specific separate buffer to said separate buffer manager,

Q8 said separate buffer manager initializes said specific separate buffer in accordance with the initialization instruction from said decoding controller, and

all the processing which is stopped is resumed, and the discard of said data is released after said specific separate buffer is initialized.

5. **(Currently amended)** A multiple decoding method, in which a signal composed of a plurality of encoded data is inputted, to simultaneously decode two or more of the data, comprising ~~the steps of:~~

inputting ~~said~~ the signal and extracting the two or more data to be decoded and reproduced;

storing ~~said~~ the extracted data in a buffer;

distributing the data stored in ~~said~~ the buffer for each type and respectively storing the data in ~~the~~ a plurality of separate buffers; and

controlling output of data stored in the plurality of separate buffers such that the data stored in the plurality of separate buffers are associated with each other; and

respectively decoding, responsive to said controlling, the data stored in said the plurality of separate buffers and outputting the decoded data.

6. **(Currently amended)** The multiple decoding method according to claim 5, further comprising, when ~~said~~ the buffer becomes full of the data, ~~the steps of~~ data:

stopping extraction and decoding of the ~~data,~~ data;

initializing all ~~said of the~~ buffer and ~~said the~~ plurality of separate ~~buffers, buffers;~~ and
resuming all the processing which is stopped after all ~~said of the~~ buffer and ~~said the~~ plurality
of separate buffers are initialized.

7. **(Currently amended)** The multiple decoding method according to claim 5, further
comprising, when ~~the~~ a specific separate buffer becomes full of the ~~data, the steps of data:~~

stopping the distribution of the data into ~~said the~~ specific separate buffer and the decoding
of the data stored in the specific separate ~~buffer, buffer;~~

initializing ~~said the~~ specific separate buffer; and

resuming all the processing which is stopped after ~~said the~~ specific separate buffer is
initialized.

8. **(Currently amended)** The multiple decoding method according to claim 5, further
comprising, when ~~the~~ a specific separate buffer becomes full of the ~~data, the steps of data:~~

discarding the data directed toward ~~said the~~ specific separate ~~buffer, buffer;~~

stopping ~~the~~ ~~said~~ decoding of the data stored in ~~said the~~ specific separate ~~buffer, buffer;~~

initializing ~~said the~~ specific separate ~~buffer, buffer;~~ and

resuming all the processing which is stopped after ~~said the~~ specific separate buffer is
initialized, and releasing the discard of ~~said the~~ data.
